

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Hiroto SUGAHARA, et al.

Title: RADIO WAVE PROPAGATION CHARACTERISTIC  
ESTIMATION SYSTEM, AND ITS METHOD AND PROGRAM

Appl. No.: Unassigned

Filing Date: November 9, 2005

Examiner: Unassigned

Art Unit: Unassigned

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR §1.56**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

### **TIMING OF THE DISCLOSURE**

The listed documents are being submitted in compliance with 37 CFR §1.97(b), within three (3) months of the date of entry of the national stage as set forth in 37 CFR §1.491.

### **RELEVANCE OF EACH DOCUMENT**

Document A1 is a U.S. counterpart of Document A6.

Document A2 is a U.S. counterpart of Document A5.

Document A4 relates to a space fading simulator for a base station array signal, which evaluates Doppler variation and arrival angle of electromagnetic wave received by an array antenna in a dark room.

Document A6 relates to a propagation environment notification method which involves transmitting radio propagation environment information, generated based on received conditions by serve, from ser to use terminal.

Document A7 relates to an electric-wave emission control system forms imitation electric-wave emission timing signal, based on electric-wave emission timing signal from source of electric-wave emission.

Document A8 relates to a test device for radio terminals – enables fading in output terminal of transmitting gain controller by controlling phase and amplitude of base station signal.

Document A9 relates to a field strength calculation device for mobile communication system – has calculation unit which determines electric power of electromagnetic wave at receiving point and computes field strength of electromagnetic wave at receiving point.

Documents A2, A3, A5 and A10, listed on the attached PTO/SB/08 were cited as being relevant during the prosecution of the corresponding International application. A copy of the International Search Report is attached setting forth the portion of each document considered relevant by the examiner. An English-language counterpart of the foreign-language documents has not been provided. The absence of a translation or an English-language counterpart document does not relieve the PTO from its duty to consider any submitted document (37 CFR §1.98 and MPEP§609).

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Date: November 9, 2005

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Substitute for form 1449B/PTO

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

Date Submitted: November 9, 2005

(use as many sheets as necessary)

Sheet 1 of 1

Complete if Known

Application Number	Unassigned	10/556128
Filing Date	11/09/2005	
First Named Inventor	Hiroto SUGAHARA	
Group Art Unit	Unassigned	
Examiner Name	Unassigned	
Attorney Docket Number	040447-0269	

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	A1	2002/0002046	A1	OKANOUE et al.	01-03-2002	
	A2	2002/0094809	A1	WATANABE et al.	07-18-2002	

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	A3	JP	2003-318811	A	NIPPON TELEGR & TELEPH CORP.	11-07-2003		A
	A4	JP	2002-333459	A	RIKOGAKU SHINKOKAI	11-22-2002		A
	A5	JP	2002-214267	A	NEC CORP.	07-31-2002		A
	A6	JP	2002-204199	A	NEC CORP.	07-19-2002		A
	A7	JP	2002-139564	A	MITSUBISHI ELECTRIC CORP.	05-17-2002		A
	A8	JP	11-186973		MITSUBISHI ELECTRIC CORP.	07-09-1999		A
	A9	JP	09-033584		NTT IDO TSUSHINMO KK	02-07-1997		A

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	A10	Y. WATANABE et al., "A High Speed Ray Launching Method by Hierarchical Determination of Ray Reception," 2004, The Institute of Electronics, Information and Communication Engineers Sogo Taikai.	

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.